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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,400	01/09/2002	Laura J. Poplawski	END920010032US1(14761)	9037

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EXAMINER

LERNER, MARTIN

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/042,400	Applicant(s) POPLAWSKI, LAURA J.	
	Examiner Martin Lerner	Art Unit 2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 to 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5 to 7, 10 to 12, and 15 to 16 are rejected under 35 U.S.C. 102(e) as being anticipated by *Ballantyne et al.*

Regarding independent claims 1, 6, and 11, *Ballantyne et al.* discloses a method, system, and program instructions for converting XML data from a legacy computer system, comprising;

“providing a delimited flat file having one or more columns with text, each of said columns having a column heading” – a “flat file” is a simple database model, where information is stored in a plain text file, with one database record per line, each record being divided into fields using delimiters at fixed column positions (Wikipedia); Figure 4 illustrates a flat file from COBOL legacy code, with one record per line, columns and headings for date, time, number, city, duration, cost, etc., where each column is

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delimited by fields; text data of flat file records includes cities "San Antoni", "Kill Devil", etc. (column 8, lines 46 to 58: Figure 4);

"providing a map file conforming to said document type definition file and having tags and attributes including references matching said headings, wherein each of the column headings is matched by one of the references included in said attributes" – modeling/mapping graphical user interface 30 illustrates the mapping relationship between the XML schema, the report data model, and the underlying legacy computer program application depicted as COBOL (column 10, lines 4 to 22: Figures 4 to 6); the mapping relationship is a program defining a mapping engine 24 for creating modified legacy program applications (column 10, lines 54 to 65); a mapping is defined by attributes and tags for XML to match reference headings in COBOL (column 12, lines 11 to 45); implicitly, a "document type definition file" defines elements of a document as being COBOL or XML;

"forming a tree structure from said map file for mapping said text from said flat file into a defined format in said markup language file, and wherein each tag represents one or more nodes of said tree" – a data structure for an XML schema is a tree structure of elements (column 11, lines 29 to 47: Figures 7 and 7A); elements correspond to tags for XML; elements of a tree structure include text elements for "city";

"traversing said nodes of said tree structure, node-by-node, and for each said node entering said attributes into said markup language file" – a tree structure is utilized for rewriting a legacy program code from COBOL into XML ("said markup language file") by traversing the elements of a tree structure for each element (column 11, lines 29 to

47: Figures 7 and 7A); thus, text elements for “address”, “city”, etc., are obtained from a source program for a target program by traversing every node of a tree structure of Figure 7A;

“when said attributes include one of said references that matches one of the column headings, retrieving text from the one of said columns having said matching one of said headings, and entering said retrieved text into said markup language file” – tags are opened from an identified ancestor down through the called node, and attributes of the nodes along the tree structure are emitted along with appropriate values (column 12, lines 32 to 45: Figure 8: Step 110); thus, text for name, address, phone number, etc., for a customer are translated from legacy program code in COBOL into XML for each element of text in a record.

Regarding claims 2, 7, and 12, *Ballantyne et al.* discloses a mapping relationship of mapping engine 26 defines correspondences between elements of a legacy program in COBOL and XML (column 10, lines 4 to 30); implicitly, mapping is applied for all corresponding elements.

Regarding claims 5, 10, and 15, *Ballantyne et al.* discloses a legacy file in COBOL, which is a flat file delimited by tabs defining columns for date, time, number, city and state, duration, cost, etc. (Figure 4).

Regarding claim 16, *Ballantyne et al.* discloses that headings of columns of a flat file from a legacy program written in COBOL (Figure 4) have matching references in a tree (Figure 7A) for mapping engine 26, thereby creating a map file to convert into matching references in a markup language file (Figures 5 to 7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 8, 9, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ballantyne et al.* in view of *Baisley et al.*

Ballantyne et al. omits the steps of providing a map file for default text for certain elements and attributes in the markup language, and entering the default text into the markup language for attributes having references that do not match headings of the flat file. Ordinarily, it would be presumed that all corresponding elements of matching between a source flat file and an object file are provided, but it is well known that there are exceptional instances where they may not, whereupon a default procedure must be specified. (Analogously, when a file name is not specified for saving the file in Windows®, an opening text segment of a file is designated as a default file name.)

Baisley et al. teaches a procedure for converting from one modeling language to another, wherein object models existing in a Uniform Modeling Language (UML) are converted to models existing in a Meta Object Facility Language (MOF). Specifically, it is stated that it is not always possible to generate a name for each unnamed element, and generated names often do not serve the purpose of describing the named element. Thus, when no name is provided, or when a name is omitted from both ends, the end's

type may be a suitable name, a numeral may be appended to an offending name that violates a rule constraint of UML, or it may be given the name "Contains". (Column 4, Line 49 to Column 5, Line 67) The objective is to provide a set of rules for making a transformation between models in object-oriented programming languages with a predictable mapping. (Column 1, Lines 39 to 67) It would have been obvious to one having ordinary skill in the art to apply the default naming conventions taught by *Baisley et al.* in the method and system for modifying legacy programs into XML of *Ballantyne et al.* for the purpose of providing transformation rules between programming languages with a predictable mapping.

Response to Arguments

Applicant's arguments filed 05 January 2006 have been fully considered but they are not persuasive.

Applicant argues that the claimed method, system, and program storage device presents a unique map file and is completely different from *Ballantyne et al.*

Specifically, Applicant says that *Ballantyne et al.* is concerned with modifying a legacy computer application so that the application outputs data in a desired way. Applicant notes that *Ballantyne et al.* discloses modifying the underlying legacy computer system program applications to report data in XML format, but says *Ballantyne et al.* does not transform the output from the legacy computer system after the data is reported in the format of the legacy computer system. Applicant maintains that the approach taken by *Ballantyne et al.* is opposite to the approach taken by the claimed method, system, and

program storage device. Applicant points to Figures 4 and 5 of *Ballantyne et al.*, saying that *Ballantyne et al.* does not convert the text of Figure 4 to the text of Figure 5. Instead, Applicant states that Figures 4 and 5 of *Ballantyne et al.* represent different printed outputs of the same basic data. These arguments are not convincing.

Applicant mischaracterizes the claimed method, system, and program storage device as presenting a unique map file that is completely different from *Ballantyne et al.* There is nothing in the claims that distinguishes over *Ballantyne et al.* Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant attempts to draw a distinction between modifying a legacy program and reporting text in a different format. Applicant says that *Ballantyne et al.* modifies the legacy program, while their claimed method, system, and computer program device just transforms the text into a different format. However, in this respect, all that is required to meet the terms of the claims is that text is transformed by the mapping routine, and this is done *Ballantyne et al.* Figure 4 shows the text displayed as a flat file as it would appear in a legacy program written in COBOL. Figure 5 shows the identical data after it is mapped into a program for XML. In fact, Figure 5 does not show the data as it is subsequently displayed. Figure 5 only shows the data written into a program for displaying the data in XML. The text data as displayed by XML may appear identically displayed with the same columns and heading as in Figure 4, or it may appear in a

different format as defined by a record of Figure 5, where the data is inserted into an XML program following mapping.

Applicant is trying to draw a distinction between modifying a program and converting the text. However, the purpose of modifying the program is to convert the text in *Ballantyne et al.* The input is a flat file written in COBOL for *Ballantyne et al.*, and the output is data displayed by XML from a modified program. The mapping fills the slots of data from the flat file of COBOL into slots of data having a format for XML. Tags and attributes are elements of a program written in XML, as illustrated in Figures 5 and 5A. If there is a mapping between the data elements of the legacy program and the markup language program, then the text is converted from one format to another format. Modifying a legacy program so that it produces an output of XML text is equivalent to converting the text between formats. An XML program controls how the text is subsequently displayed.

Applicant also argues that another important difference between the claimed method, system, and program storage device and the procedure disclosed in *Ballantyne et al.* relates to the purpose for which, and the way in which, the mapping file is used. Applicant says, with the procedure described in *Ballantyne et al.*, a mapping engine is used to map a model of write applications of the legacy computer system to an XML schema. Applicant maintains, however, that in the claimed method, system, and program storage device, the mapping file is used to map text in one format to another format. Applicant states that *Ballantyne et al.* shows a node tree in Figure 7A, and

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admits that the tree is used to help output data, but says the tree is not used to convert data from a flat file. This position is traversed.

Applicant begins by repeating the same argument in a different form. If *Ballantyne et al.* employs a mapping engine to map a model of write applications, then the purpose of the write application is to map the text from one format to another format. Converting the text from a legacy program to a markup language program involves taking text that was written by the legacy program and displaying the text in a format of a markup language program. Mapping a model of a write application produces converted text.

Moreover, one having ordinary skill in the art would readily see that the node tree of Figure 7A is used to convert data from a flat file. The node tree of Figure 7A shows nodes of “customer”, “name”, “address”, etc. A customer record is one element of data to be displayed by Figures 5, 5A, and 7. Reading the reference as whole, however, it should be clear that each element of Figures 4 and 5 – date, time, code, phone-number, etc. – are mapped in an analogous manner by a node tree for each element of a record. Thus, *Ballantyne et al.* is concerned with creating node trees for all corresponding data elements.

Therefore, the rejection of claims 1, 2, 5 to 7, 10 to 12, and 15 to 16 under 35 U.S.C. 102(e) as being anticipated by *Ballantyne et al.*, and of claims 3, 4, 8, 9, 13, and 14 under 35 U.S.C. 103(a) as being unpatentable over *Ballantyne et al.* in view of *Baisley et al.*, are proper.

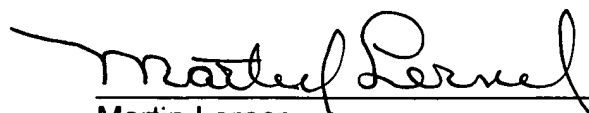
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Lerner whose telephone number is (571) 272-7608. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML
2/16/06

A handwritten signature in black ink, appearing to read "Martin Lerner", written over a horizontal line.

Martin Lerner
Examiner
Group Art Unit 2654